Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1.-13. (Cancelled).

14. (Previously Cancelled).

15.-61. (Cancelled).

62. (Previously Cancelled).

63.-77. (Cancelled).

78. (New) A method for producing an optical element, comprising:

a step of forming a proton exchange layer in an $LiNb_xTa_{1-x}O_3$ ($0 \leq X \leq 1$) substrate;

a high-temperature annealing step of performing a heat treatment for the substrate at a temperature of 150°C or higher; and

a low-temperature annealing step of performing a heat treatment for the substrate at a temperature of 120°C or lower for 1 hour or more so as to mitigate strain introduced in the proton exchange layer by the high-temperature annealing step.

79. (New) A method for producing an optical element according to claim 78, wherein the low-temperature annealing step is performed at a temperature equal to or higher than 50°C but lower than or equal to 90°C.

80. (New) A method for producing an optical element according to claim 78, wherein the low-temperature annealing step comprises a step of gradually lowering the temperature from 100°C to 60°C over 30 hours.

81. (New) A method for producing an optical element according to claim 78, further comprising:

a step of forming a plurality of periodically-arranged domain inverted layers in the substrate.

82. (New) A method for producing an optical element, comprising:

a step of performing a proton exchange process for an $LiNb_xTa_{1-x}O_3$ ($0 \leq X \leq 1$) substrate;

a first annealing step of performing a first heat treatment for the substrate at a first temperature, after performing the proton exchange process; and

a second annealing step of performing a second heat treatment for the substrate at a second temperature, after performing the first heat treatment,

wherein the second temperature is lower than the first temperature by 200°C or more.

83. (New) A method for producing an optical element according to claim 82, wherein the second annealing step is performed at a temperature equal to or higher than 50°C but lower than or equal to 90°C.

Respectfully submitted,

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Kathleen Libby